CLAIMS

1	1.	A method for temporal concealment of missing/corrupted macroblocks in a video
2	stream coded in direct mode, comprising the steps of:	
3	identifying at least one missing/corrupted macroblock;	
4	finding a co-located macroblock in a first previously transmitted picture;	
5	determining a co-located motion vector for the co-located macroblock;	
6	scaling the co-located motion vector in accordance with a Picture Order Count (POC)	
7	distance;	
8	predicting missing/corrupted data for the identified macroblock by motion compensating	
9	data from both the first previously transmitted picture and a second previously transmitted	
10	reference picture in accordance with the scaled co-located motion vector.	
4		
1.	2.	The method according to claim 1 wherein the missing/corrupted data is predicted
2	using a temporal-direct mode.	
1	· 3.	The method according to claim 1 wherein the missing/corrupted data is predicted
2	using one of the temporal and spatial-direct modes derivation processes in accordance with at	
3	least one criterion selected prior to such predicting.	
1	4.	The method according to claim 3 wherein selection of one of the temporal and
2	spatial-direct modes derivation processes is made in accordance with concealment region size.	
1	5.	The method according to claim 4 wherein selection of one of the temporal and
2	spatial-direct modes derivation processes is made in accordance a derivation mode of	
3	neighboring slices.	
1	6.	The method according to claim 1 wherein the missing/corrupted data is predicted
2	by the steps of:	
3	performing the temporal and spatial-direct modes derivation processes; and	
4.	selecting results of one of the temporal and spatial-direct modes derivation processes in	
5	accordance with at least one a posteriori criterion.	

WO 2005/046072

PCT/US2003/031825

- 7. The method according to claim 1 further comprising the step of deriving a size of blocks in the first and second pictures to which to apply the co-located motion vector.
- 1 8. The method according to claim 1 wherein the results are selected in accordance 2 with a boundary strength value of deblocking in accordance with the ITU H.264 coding standard.
- 9. The method according to claim 1 wherein the missing/corrupted data is predicted using a temporal-direct mode defined in the ITU H.264 coding standard.
- 1 10. A method for temporal concealment of missing/corrupted macroblocks in a video 2 stream coded in direct mode in accordance with the ISO/ITU H. 264 coding standard, comprising 3 the steps of:
- 4 identifying at least one missing/corrupted macroblock;
- finding a co-located macroblock in a first previously transmitted picture;
- determining a reference index and a motion vector for the co-located macroblock;
- 7 scaling the motion vector;
- 8 selecting a second previously transmitted picture in accordance with the reference index;
- 9 and
- 10 predicting missing/corrupted data for the identified macroblock by motion compensating
- data from the first and second previously transmitted reference pictures in accordance with the
- 12 determined motion vector.
- 1 11 The method according to claim 10 wherein the missing/corrupted data is predicted 2 using a temporal-direct mode defined in the ITU H.264 coding standard.
- 1 12. The method according to claim 10 wherein the missing/corrupted data is predicted 2 using a spatial-direct mode defined in the ITU H.264 coding standard.
- 1 13. The method according to claim 10 wherein the missing/corrupted data is predicted
- 2 using one of the temporal and spatial-direct modes derivation processes defined in the ITU H.264
- 3 coding standard in accordance with at least one criterion selected prior to such predicting.

WO 2005/046072

- 1 14. The method according to claim 10 wherein selection of one of the temporal and spatial-direct modes derivation processes in made in accordance with concealment region size.

 1 15. The method according to claim 14 wherein selection of one of the temporal and
- 1 15. The method according to claim 14 wherein selection of one of the temporal and spatial-direct modes derivation processes in made in accordance a derivation mode of neighboring slices.
- 1 16. The method according to claim 10 wherein the missing/corrupted data is predicted 2 by the steps of:
- performing the temporal and spatial-direct modes derivation processes defined in the ITU

 H.264 coding standard; and
- selecting results of one of the temporal and spatial-direct modes derivation processes in accordance with at least one a posteriori criterion.
- 1 17. The method according to claim 16 wherein the results are selected in accordance with a boundary strength value of deblocking in accordance with the ITU H.264 coding standard.